

AMENDMENTS TO THE CLAIMS

The following amendments to the claims are made without prejudice or disclaimer.

1. (Previously Presented) A conformationally flexible cationic conjugated polymer comprising at least one angled linker having bonds to its two adjacent polymeric units which form an angle of less than about 155° with respect to one another and comprising multiple cationic groups in said polymer.
2. (Previously Presented) The polymer of claim 1, wherein the angle is less than about 145° .
3. (Previously Presented) The polymer of claim 1, wherein the angle is less than about 135° .
4. (Previously Presented) The polymer of claim 1, wherein the angle is less than about 125° .
5. (Previously Presented) The polymer of claim 1, wherein the angle is about 45° or more.
6. (Previously Presented) The polymer of claim 1, wherein the angle is about 60° or more.
7. (Previously Presented) The polymer of claim 1, wherein the monomeric unit has an optionally substituted structure selected from the group consisting of 1,2- benzene, 1,3-benzene, 1,2-naphthalene, 1,3-naphthalene, 1,6-naphthalene, 1,7-naphthalene, 1,8 -naphthalene, 1,2-anthracene, 1,3-anthracene, 1,6- anthracene, 1,7-anthracene, 1,8-anthracene, and 1,9-anthracene, 2,3-biphenyl, 2,4-biphenyl, 2,6-biphenyl, 3,3'-biphenyl, 3,4-biphenyl, 3,5-biphenyl, 2,2'-biphenyl, 2,3'-biphenyl, 2,4'-biphenyl, and 3,4'-biphenyl, and wherein said monomeric unit is optionally substituted with one or more heteroatoms.
8. (Previously Presented) The polymer of claim 1, wherein the polymer is soluble in a predominantly aqueous medium.
9. (Previously Presented) The polymer of claim 1, wherein the polymer is soluble in water.
10. (Previously Presented) The polymer of claim 1, wherein the polymer comprises at least 1 mole percent of said monomeric unit.
11. (Previously Presented) The polymer of claim 1, wherein the monomeric unit introduces a torsional twist into the polymer.

12. (Previously Presented) The polymer of claim 1, wherein the polymer is a copolymer.

13. (Previously Presented) The polymer of claim 1, wherein the polymer is a block copolymer.

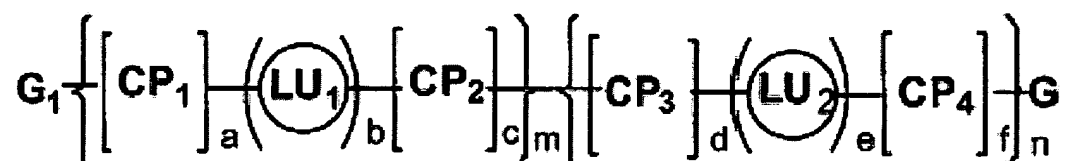
14. (Previously Presented) The polymer of claim 12, wherein the monomeric unit is incorporated randomly.

15. (Previously Presented) The polymer of claim 12, wherein the monomeric unit is incorporated periodically.

16. (Previously Presented) The polymer of claim 12, wherein the monomeric unit is incorporated in a block.

17-41. (Cancelled)

42. (Currently Amended) The polymer of claim 1, wherein said polymer has the structure:



wherein:

CP1, CP2, CP3 and CP4 are optionally substituted conjugated polymer segments or oligomeric structures, and may be the same or different from one another;

LU1 and LU2 are angled linkers forming bond angles to two adjacent polymeric units of less than about 155°, and can be mono- or polycyclic optionally substituted aryl groups having 5 to 20 atoms;

CP1, CP2, CP3, CP4, LU1 and LU2 are each optionally substituted at one or more positions with one or more groups selected from -R1-A, -R2-B, -R3-C and -R4-D, and may be attached through bridging functional groups -E- and -F-, with the proviso that the polymer as a whole must be substituted with a plurality of cationic groups;

R1, R2, R3 and R4 are independently selected from alkyl, alkenyl, alkoxy, alkynyl, and aryl, alkylaryl, arylalkyl, and polyalkylene oxide, each optionally substituted, and which may contain one or more heteroatoms, or may be not present;

A, B, C and D are independently selected from H, -SiR'R''R''', -N⁺R'R''R'''', a guanidinium group, histidine, a polyamine, a pyridinium group, and a sulfonium group;

R' , R'' and R''' are independently selected from the group consisting of hydrogen, C1-12 alkyl and, C1-12 alkoxy and C3-10 cycloalkyl;

E and F are independently selected from not present, -O-, -S-, -C(O)-, - C(O)O-, - C(R)(R')-, -N(R')-, and -Si(R')(R'');

~~X is O, S, Se, N(R') or C(R')(R'');~~

~~Y and Z are independently selected from C(R)= and N=;~~

m and n are independently 0 to about 10,000, wherein $m + n > 1$;

b and e are independently 0 to about 250, wherein $b + e > 1$;

a, c, d and f are independently 0 to about 250; and

G and Gl are capping units and may be the same or different, and are selected from activated units that allow further chemical reaction to extend the polymer chain, and nonactivated termination units.